

# Standard Form

Are you taking notes?

$$Ax + By = C$$

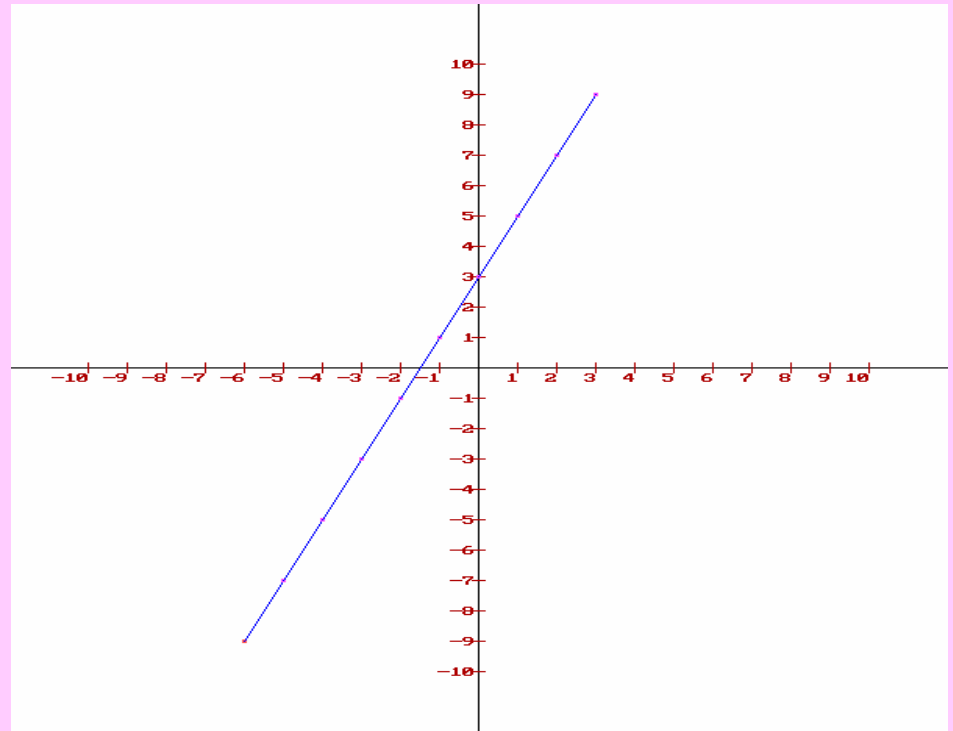
- A - must be positive
- x and y must be on the left of the =
- No fractions or decimals

# Graphing $Ax + By = C$

- Slope =  $-A/B$
- X intercept =  $C/A$
- Y intercept =  $C/B$

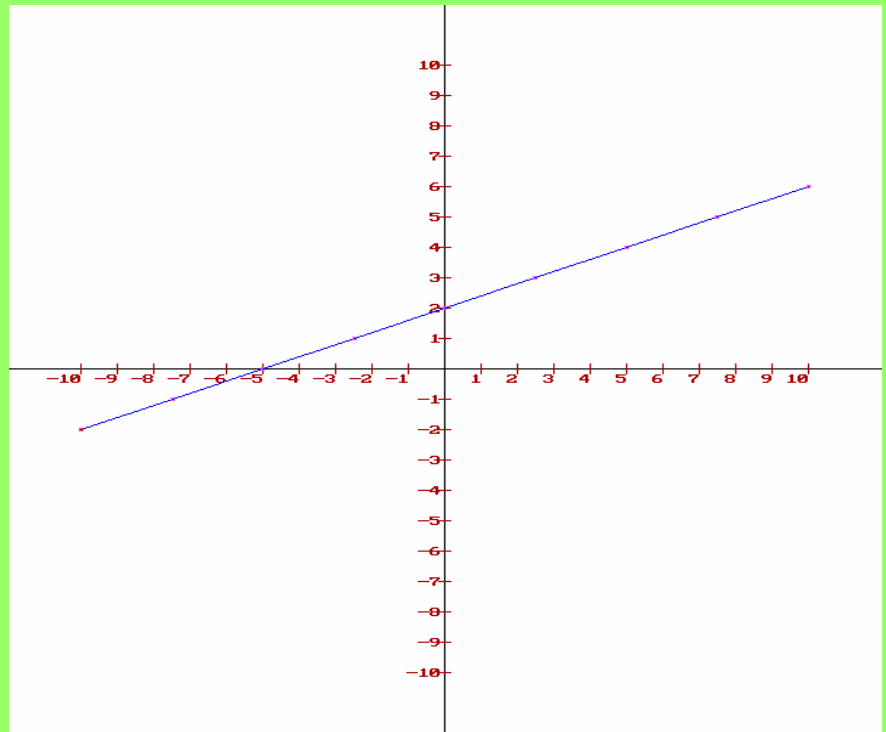
# Example #1

- $y = 2x + 3$
- $-2x + y = 3$
- $2x - y = -3$
- $m=2$
- X-int =  $-3/2$
- Y int = 3



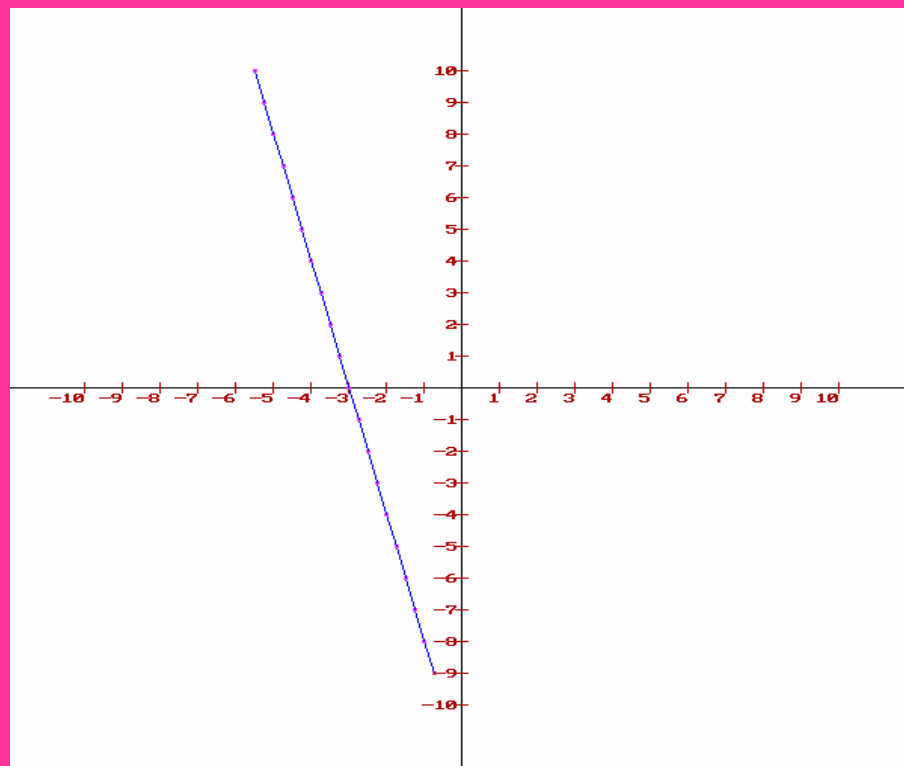
# Example #2

- $y = \frac{2}{5}x + 2$
- $5y = 2x + 10$
- $-2x + 5y = 10$
- $2x - 5y = -10$
- $M = \frac{2}{5}$
- X-int = -5
- Y-int = 2



# Example #3

- $-2x = \frac{1}{2}y + 6$
- $-4x = y + 12$
- $-4x - y = 12$
- $4x + y = -12$
- $M = \frac{1}{2}$
- X-int = -3
- Y-int = -12



# Example #4

- Write an equation in standard form
- $(1,1)$  and  $(3,2)$
- $M = 1/2$
- $Y - 1 = \frac{1}{2}(x - 1)$
- $Y - 1 = \frac{1}{2}x - \frac{1}{2}$
- $2y - 2 = x - 1$
- $x - 2y = -1$